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The Importance of Video Recordings in Signed Language Interpreting Research

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Abstract

In signed language interpreting studies, researchers have devoted attention to the role of video recordings in data collection since the very beginning. Given the visual nature of signed languages, such recordings are imperative in order to investigate various aspects of signed language interpreting such as for instance interpreting strategies, interpreting quality, and interactional aspects of the interpreter mediated communication.

This differs from studies looking at spoken language interpreting, where traditionally audio recordings were and to some extent still are the primary source of data in research.

In this chapter I claim that, in line with recent shifts in the understanding of communication and interaction (Mondada 2011), any research on interpreting – which is a communicative act – should be based on multimodal data, including the visual, audiological, gestural and any other layers of interaction.

As a way of introduction, the chapter gives an overview of how and to which extent video recordings as a data collection tool have been used in three research fields in spoken and signed languages; spoken interaction studies, sign linguistics and interpreting studies, drawing primarily on Erickson (2011), Lucas et al (2013), and Napier & Leeson (2016).

This chapter goes on to discuss the advantages and possible challenges of the use of video as a recording tool in signed language interpreting research, based on a case

study on interpreting strategies used by Flemish Sign Language interpreters (Heyerick forthcoming). The same example also illustrates the role of video as an elicitation tool within signed language interpreting research.

While the chapter explores the benefits, opportunities and potential obstacles of working with video in research on signed language interpreting, I argue that including video recordings in any research examining communication and/or interaction has the potential to provide very rich data. Video allows for interactive events to be registered in their full multimodal effect and to be regarded and researched as multimodal events (Mondada 2011). This approach can broaden the understanding of human interaction in any field of study.

Keywords sign language – sign language interpreting – interpreting studies – methodology - multimodality

Video recordings as a data collection tool

Spoken interaction: acknowledging the multimodal layers

Traditionally, spoken language research has primarily focused on the verbal aspect as it relates to the auditory modality of language, a focus critiqued by various scholars. Kendon (1977) in particular argued that any research on language that isolates the verbal from the non-verbal should be regarded as a specialist theory of language. Despite this plea, a strong unimodal view on aspects of interaction prevailed through the 1990s. As a consequence, many influential works from discourse and conversational analysis (Beach 1996; Ten Have 1999) are primarily based on data collected through audio recordings. While the awareness of the potential of video

recordings in (social) research increased, the full potential for its value still remained unrecognized. As stated before, and confirmed by Erickson (2011), for many researchers the audio track – even when working with audio and visual data – remained the primary source for analysis. The visual layer was and is mostly regarded as extraneous contextual information and not valued as an intrinsic part of the interaction.

However, some studies have adopted a multimodal approach to investigate communication and interaction and have used audiovisual recordings when collecting an analyzing data. In 1955, an interdisciplinary research group conducted the first study examining the systematic analysis of the verbal and non-verbal aspects of mother-child interaction in therapy sessions (Erickson 2011). At that time the video recording equipment posed limitations on what could be collected since video cameras were quite heavy and not yet mobile, so only more or less stationary events that took place in one location could be captured. Notwithstanding these issues, the research group, made up of psychiatrists, linguists, and ethnographers, opted for audiovisual recordings. They saw the potential of a multimodal and multiparty analysis of the locally situated ecological processes of interaction and meaning (Erickson 2011) and understood that this could be obtained by working with video recorded data.

In the 1960s and 1970s awareness of the importance of multimodal data rose due to a shift in the perception of communication. As noted by Jones and Baron (2002), during that period ethnographers such as Goffman (e.g. 1963, 1967), Sheflen (e.g. 1964, 1965, 1973) and Kendon (1990) took on a complex view of communication. They perceived communication as coordinated meaningful patterns of interaction (Jones & LeBaron 2002). In order to investigate these kinds of patterns they registered and

analyzed both verbal and non-verbal aspects of language, using audiovisual recordings.

In the 1980s workplace studies emerged as a new field of study using video recorded data. In conversational analysis the groundbreaking work of Goodwin (1980) enforced the importance of visual data when examining the use of eye gaze in communication. Additionally, the emergence of Gesture Studies (Kendon 1982) also brought the use of video recordings as a data collection tool to the foreground.

During the 1990s many educational studies set in classrooms were based on video data. At the same time a new kind of research developed; ethnographical documentaries also known as "videographies" (Erickson 2011). However, Erickson (2011) points out that even in these studies the audio track still remained the primary source for data analysis.

Jones and LeBaron (2002) explicitly questioned this strong focus on the verbal aspect of spoken language interaction. They wondered whether audio recordings are really sufficient when studying communication, since interaction is regarded as the integration of the verbal and non-verbal. Departing from this multimodal perspective on interaction, they proposed that video recordings would be the basis for future research (Jones & LeBaron 2002: 512).

Taking into account this call for a focus on multimodality and the fact that video recording equipment has developed so rapidly in the 21st century, it should be possible for researchers investigating spoken language communication to treat visual and audio data as equally important sources. Whereas in the beginnings the video recording equipment actually limited the situations that could be recorded and thus the research topics, new technologies (hand-held cameras, mini-cameras, button cameras, GoPro types and video recording software on laptops, tablets, and

smartphones) now allow for many types - but not all - of situations to be recorded. In fact, digital video technology used in research can help to develop new and renewing approaches and methodologies for research. An additional challenge would lie in the analysis of the multimodal nature of the data, an issue that goes beyond the scope of this chapter but is important to consider.

Signed interaction: visual registration of visual languages

Signed languages are visual-gestural languages. They are produced by the hands, face and body and perceived by the eyes, and in the case of deafblind signers, by the hands. In contrast to the history of research on interaction in spoken language, as described previously, visual documentation is and has been an integral aspect of signed language research. The very nature of interaction in signed languages, using many articulators simultaneously and referring to vital points in the immediate environment, makes video recording an indispensable data collection tool. Lucas et al (2013) concur and state that video recording is an established way of collecting data in signed language research. However, this does not imply that there lie no challenges in using video registration. As I will discuss in the section *Issues* there are practical, technical and ethical impediments a researcher must be aware of for which I will suggest some solutions.

One of the earliest sign linguistic studies, the seminal work of William Stokoe (1960) on the linguistic structure of American Sign Language, is based on video recordings. Napier & Leeson (2016) quote Virginia Volterra, one of the researchers working alongside Stokoe, who remembers that they worked with "this very big video machine – very complicated". So, in the early days of sign linguistics, video recording was a conventional data collection method even if the machines were large and the data

cumbersome to analyze.

However, Lucas et al (2013) clarify that including video data in signed language research was not always the case. They report that in the late 1970s questionnaires were occasionally used to collect data on signed languages.

Nonetheless, videotaping eventually became the primary means for data collection. Whether in the field of sign linguistics, cognitive processing of signed languages, signed language acquisition, sociolinguistics or signed language interpreting (Sandler & Lillo-Martin 2006, Napier & Leeson 2016); at this time, video is the primary data collection tool.

This should not imply that gathering signed language data is easy. Especially situations where communication occurs naturally are at times hard to access for a researcher armed with video recording equipment. As a consequence, many studies have adopted an experimental study approach, and this has in some cases sprung debate concerning the validity of some findings.

Spoken and Signed Interpreting Studies: the emergence of corpora

Before turning to how video recordings are used in signed language interpreting tudies, I consider how the general field of Interpreting Studies adopts this data collection methodology.

When studying spoken language interpreting and the process of interpretation, having access to the verbal input and output is considered to be generally sufficient. So, as in spoken interaction research, audio recordings in Interpreting Studies are the main data source for research. However, taking into account that interpreting is the use of language in (inter)action, it can be debated that a more multimodal approach, including the non-verbal layer of interaction, might increase our understanding of

what it is interpreters do.

As an illustration to support this notion, I would like to introduce one of the first corpus projects for Interpreting Studies, the EPIC corpus (the European Parliament Interpreting corpus)[1]. In 1998, Shlesinger called for the development of corpus-based research in Interpreting Studies, which is a well-established research method in linguistics and in Translation Studies. However, at this time, a large-scale corpus made up of natural occurring data has been long awaited for in Interpreting Studies. The EPIC corpus is a first initiative to address this need and it aims to provide materials for the testing of hypotheses and validation of existing theories regarding interpreting strategies.

As stated by Bendazolli & Sandrelli (2005) and mentioned earlier, many interpreting studies are either based on observations or experimental data, because it is difficult for researchers to get consent to collect natural and authentic interpreter-mediated settings. The EPIC project offers a solution by recording and archiving original European Parliament plenary speeches and their interpretations in Italian, English and Spanish, which are broadcasted throughout Europe by Satellite TV and are therefore easily accessible. The project intends to establish a multidimensional tool including video, audio and written materials for research on simultaneous interpreting (Bendazolli & Sandrelli 2005). While the EPIC corpus is indeed made up of the digital video and audio clips of both the original speech and the interpretation, its primary focus is still on the verbal output of the interpreters. The researchers are mainly interested in the audio files of the interpretation, as they state themselves:

[1] http://catalog.elra.info/product_info.php?products_id=1145

> The videotapes with the recordings of the original speakers are being digitized as video files, as visual information is potentially useful for later analysis of the corpus. By contrast, the interpreted speeches are digitized as audio files, since the images on the videotapes are exactly the same (i.e. the plenary speakers), *whereas our interest lies in audio information (i.e. the interpreters' performances*). For each plenary sitting, one video file (the original debate in which all the EU languages may be used as official languages) is thus obtained, together with three audio files containing the same speeches simultaneously interpreted into English, Italian and Spanish. (Bendazolli & Sandrelli 2005: 5, my italics)

The focus on the audio information and the fact that only the spoken materials have been transcribed in the corpus, reinforces the "logocentrism" also observed in social research using video recorded data (Erickson 2011). Taking into account that an interpretation can be viewed as an act of language in interaction, which comprises of multimodal layers of communication including gestures, facial expression etc., it is surprising to see that in a corpus intended for Interpreting Studies, the verbal and non-verbal dimensions of the interpreters' performances are disconnected.

Following the EPIC corpus, a second corpus, the DIRSI (Directionality in Simultaneous Interpreting), was developed. This one consists only of audio recordings (Bendazolli & Sandrelli 2009), reinforcing the focus on the verbal in the creation of Interpreting Studies corpora.

Signed Language Interpreting: visual registration of communication in interaction

The kind of logocentrism Erickson (2011) refers to is not an issue in Signed Language Interpreting Studies since, as argued earlier, it is impossible to disregard the many articulators (the hands, the face, the body) and the immediate environment in which the signed language interaction unfolds, researchers will primarily turn to video recorded data.

Before discussing video recordings as a vital data collection and elicitation tool in Signed Language Interpreting Studies, I offer a brief account of how the field developed.

According to Napier & Leeson (2016), Signed Language Interpreting Studies belongs to the field of Applied Sign Linguistics since interpreters use language in practice and this kind of research aims to contribute knowledge and improve the understanding of this particular practice.

Sign Linguistics as a research field emerged in the 1960s, however, the academic interest in signed language interpreting (SLI) did not develop until later. In 1981, Sharon Neumann Solow published her work on signed language interpreting which was primarily based on observations and practice. About ten years later, Nancy Frishberg presented her volume on sign language interpreting. This was followed by the research done by Cokely (1992) and the seminal work of Metzger in 1999. In her research she used live video recordings of interpreted encounters and videotapes of such encounters submitted by interpreter training programs.

In 2004, Napier published her doctoral dissertation on linguistic coping strategies used by Australian Sign Language interpreters, based on video recorded data of both the original speech – an university lecture - and the interpretation.

Stone (2005) analyzed and compared interpreting strategies used by deaf and hearing British Sign Language interpreters working on television, using the interpreted news broadcasts on the BBC as the primary research data set.

Of course, not all studies within SLI are based on video recorded data since how data are collected depends on the research topic and which kind of data are needed. Some of these topics are more bound to theoretical discussions on the role of the interpreter, ethics, interpreting education, assessment of interpreter adeptness, etc. These kinds of studies do not necessarily work on interpreted data but are rather based on observations, interviews, questionnaires etc. However, studies concerning topics such as the interpreting process, the quality of interpretation, source and target language aspects, and interpreting strategies should consider the activity of interpreting, the actual practice as their primary data. This calls for data that offers access to the source and target language, which in the case of signed language interpreting evidently requires audiovisual recordings.

Video as a data collection and elicitation tool: a case study

The case study

In order to explore one way of how video recordings can be used in research on signed language interpreting, I would like to introduce the methodology designed for a study on interpreting strategies used by Flemish Sign Language (VGT) interpreters, which included video recordings both as a data collection tool and an elicitation tool.

The study aims to describe linguistic interpreting strategies used by deaf and hearing Flemish Sign Language interpreters. The methodology allowed the researcher to look

at which strategies the participants used and to investigate why certain decisions were made.

The data collection for this research resulted in video data of eight (8) interpreters consisting of: (1) a preparation session conducted with a think-aloud process (TAP), (2) an interpreting task and (3) a stimulated recall interview using the recordings of the interpreting task. For each step of the data collection, a different setup with various recording equipment was used, which I will illustrate in the following sections. Additionally, I will devote attention to the use of video recorded data as a stimulus for a retrospective interview.

Use of video recordings: data collection and elicitation

(1) Preparation session with Think-Aloud Process (TAP)

During the first step of the data collection session, the interpreters had one hour to prepare the source text and they were asked to perform a Think-Aloud Process (TAP). Before explaining what the TAP entailed, I first shed some light on the source text used for this task. It concerned an instructional video produced by the Belgian federal government outlining the tasks of the chair of a voting station. Each interpreter had to interpret these guidelines, which were delivered in spoken Dutch and of which a verbatim transcript was provided.

The particular text used in this research is a kind of text that signed language interpreters might encounter in an actual interpreting assignment, since it is not uncommon that public services provide information in Flemish Sign Language (VGT) as a means of accessibility for deaf citizens. The Federation of Flemish Deaf Associations (Doof Vlaanderen) advocates strongly for more accessibility to public services and governmental information for deaf people by requesting translations and

interpretations into VGT. The association has also set up a translation department to this end, working with only deaf translators and/or interpreters.

The speech was delivered at a normal rate and in standard Dutch. Although an objective measurement using the Gunning-Fog index [2] rated the general level of the text at 10.3 and the complexity at 42%, which indicates that the text is suited for a general audience, the interpreters participating in the research commented that they perceived the text as dense and complex.

During the preparation session, the interpreter had access to the video with audio, the video with Dutch subtitles, and the print out of the text in written Dutch. Additionally, each participant could access the Internet, use dictionaries, get in touch with a colleague or use whichever tools he/she needs in order to prepare for the interpreting task.

As mentioned, all eight participants were asked to perform a Think-Aloud Process by saying and/or signing whatever came across their mind while they were preparing for the assignment. Think-Aloud Protocols[3] (TAP) have been used in Translation Studies and in Signed Language Interpreting Studies before. Thinking aloud is a form of verbal report (Russell & Winston 2014) and more specifically a concurrent verbalization (Bowles 2010). In the case study presented here, it implied that the interpreter verbalized any thoughts that came up during the preparation session.

As pointed out by Forestal (2011) the Think-Aloud Process offers a researcher insight in the interpreting process:

[2] The Gunning-Fog index is a test for readability of a text, estimating the number of formal education a reader would need in order to understand the text. If a text is intended for a general audience, it should score less than 12 on the index.

[3] The Think-Aloud Protocol is the written report of the Think-Aloud Process on which the researcher bases the analysis.

> The TAP process enables the researcher to see how the individual is approaching the task or problem, steps undertaken, strategies employed, past experiences drawn upon, where there might be confusion or challenges within the task, solving the task, and the decisions made. (Forestal 2011: 22)

This is indeed the aim of a researcher who introduces a concurrent verbalization in a study on translation and/or interpreting processes: to yield a better understanding of the cognitive processes at work during the task (Kohn & Kalina 1996; Li 2004; Stone 2005; Hansen 2005; Jääskeläinen 2010; Forestal 2011; Russell & Winston 2014).

Although the use of concurrent verbalization in translation studies has been somewhat controversial (Kussmaul & Tirkkonen-Condit 1995; Kohn & Kalina 1996; Bernardini 2001; Li 2004; Hansen 2005; Jääskeläinen 2010; Forestal 2011; Gheorghita 2012; Russell & Winston 2014), most scholars who support this methodology agree with Kiraly (1995) when he asserts that "even if verbal reports are necessarily incomplete and do not reveal everything, what they do reveal is important.".

It is equally important that a researcher who uses TAP introduces some safeguards. In this respect Jääskeläinen (2002) points out that a warm-up is necessary - a short performance of TAP on a text that the interpreter will not actually interpret (personal communication Russell & Winston, April 3rd 2015) - for the participant to become familiar with the method. In my study, I opted to accustom the participants to the TAP by showing each of them a video of a VGT interpreter preparing the text and at the same time performing a Think-Aloud Process. This way the participants had a clear understanding of how TAP worked within this specific context.

Once it is clear to the interpreter what is expected from him/her, Russell & Winston (2014) emphasize that it is the responsibility of the researcher to give direction to the

participant and to make the purpose of the verbalization clear. In this respect I instructed the interpreters to say anything that came to their mind. Whether it was thoughts about the text, about the interpretation or about a personal concern they had. In line with Forestal (2011) and Russell & Winston (2014) I discouraged them from explaining why they were thinking about something in particular, since the aim of the analysis of the protocols was not to understand the why of the process, but to engage in the process itself.

Another factor to consider is the degree of involvement of the researcher during the Think-Aloud Process. Whereas Russell & Winston (2014) rightly point out that a researcher could intervene during the process by (re)directing the participant to the task, they also advise against it. They explicitly state that it is best practice to avoid having a data collector in the room, since it could skew the internal validity and the authenticity of the process. Hansen (2005) also acknowledges that if the researcher is in the room this could impact the Think-Aloud Process, reminding the participants of the fact that they are taking part in a research process. In order to avoid this, I decided to not be present during the preparation session. This means the interpreter was alone in the room with one camera fixed on a tripod recording (audio and video) the full preparation session. The tripod was set in such a way that the interpreter sitting at the desk was visible on the recordings. The aim was to register what the interpreter said and/or signed and what he/she did. I not only wanted to collect the verbal considerations (in spoken or signed language) of the interpreters but also their actions such as writing something down, looking something up on the Internet, stopping, starting and/or rewinding the video.

(2) The interpreting task

After the preparation session, the interpreter was asked to interpret the source text, which was equally video recorded. I decided to not use the same camera, which filmed the preparation session but to bring in a second camera for two reasons. First of all, by using a different camera I could setup the camera and have the settings ready before the interpreter would start the interpreting task. If the same camera had been used, it would require moving the camera, adjusting the tripod, and adjusting the settings. This could result in losing time and drawing unnecessary attention to the recording equipment. Secondly, it allowed me to import the recording of the preparation session while the interpreter proceeded with the interpreting task. Being able to import the data immediately minimized possible technical issues, such as the potential of losing recordings.

As outlined previously, a laptop with a built-in webcam simultaneously recorded the interpreting task, serving as a backup should the camera fail to record the interpretation. Additionally, this made it possible to view the interpreting task immediately after completion, circumventing the need to have to import the camera recordings – which can take up to 20 minutes – and saving time. Since time was crucial, working with a laptop as recording equipment provided a viable solution.

Depending on whether the interpreter was hearing or deaf, two factors were different during the interpreting task: (1) the delivery of the source text and (2) the presence of a deaf audience in the room.

The hearing interpreters worked from the audio of the DVD played through an external loudspeaker at a volume setting determined by the interpreter. For the deaf interpreters, the text was delivered in written Dutch through a teleprompter and each of the interpreters chose the speed of the teleprompter.

All interpreters were asked whether they preferred to perform the task before an audience of two deaf persons (selected by the researcher) or without an audience. The four hearing interpreters all indicated that they preferred deaf people present, emphasizing that having deaf recipients in the room would increase the authenticity of the assignment. All of them also said that it was important to interpret for someone and not just for a camera.

The four deaf interpreters expressed a preference for interpreting in front of the camera without the presence of deaf people. For them, this was the setting they were most familiar with and which posed fewer challenges. They adamantly indicated that, based on previous experiences, having to read the text on the teleprompter and maintain eye contact with the deaf recipients is arduous. The deaf interpreter who participated in the pilot study and interpreted the text for two deaf people, also flagged this issue. During the debriefing he mentioned that at times he had omitted information because he had simply not had the opportunity to read the information on the teleprompter as he was engaging in eye contact with the recipients. Based on his valuable feedback, I decided to let each interpreter - hearing and deaf - determine whether they wanted deaf people present or not.

Another critical decision I made prior to the data collection session, and which links up with the topic of the use of video in research, was whether I would show the instructional video (the images) during the interpreting task or not.

Obviously, if the interpreters could see the video during the interpretation, the audience should also have access to this information. This posed technological challenges of having a studio setup with an extra monitor for the interpreters showing the video, and projection of the video behind the interpreter for the deaf audience. At

the time of the data collection session, I did not have access to these types of resources.

Additionally, I considered what the challenges might be for the interpreters and the deaf audience when presented with the video during the interpreting task. Evidently, it requires additional effort from the interpreter to manage the multimodal nature of the event. It is a well-known fact within the realm of simultaneous interpreting that dividing attention results in extra demands on the brain's working capacity of the person performing the task (Shlesinger 2000). However, there seem to be at least four other consequences of showing the video to both the interpreter and the deaf viewer during the interpreting ask, which all increase the complexity of the interpreting process and increase the risk of loss of information.

The first potential effect of the impact of showing the video to deaf viewers who are processing the interpreted text and who need to monitor the visual attention between the interpreter and what is happening on the screen, is the so-called interference effect (Paschler 1989). One of the consequences is that the viewer needs to divide his/her attention and will miss in out on information, either coming from the interpreter or from the image. Paschler (1989) stated that interference effects are increased if the visual stimuli are large or complex, or if multiple stimuli must be processed in a single coherent task (Paschler 1989: 480). This is the case if a deaf recipient needs to process simultaneously both signed language input and still or moving images.

Several researchers looked at this issue of interference when viewers had to simultaneously attend to visual materials and a signed language interpreter (Johnson 1992; Del Vecchio & Franchi 1997; Whermeyer 2014; Whermeyer 2015). In her study on miscommunication in interpreted classroom interaction, Johnson (1992) showed that deaf students experienced difficulty in looking at the interpreter and the

blackboard simultaneously. She called this the problem of visual shifting (Johnson 1992: 5) and the issue of visual limitation (Johnson 1992: 18).

According to Del Vecchio & Franchi (1997), the need to divide attention between various visual sources hampers understanding of signed language interpreting. In their study they explored possible strategies to overcome this issue.

A study by Wehrmeyer (2014) on signed language interpretation of the news provides an even clearer picture of the challenge of divided attention. In this kind of setting the interpreter is commonly next to or in front of the pictorial content of the news (the newsreader or the reports). Wehrmeyer (2014) used eye-tracking technology in order to investigate the viewing patterns of deaf people watching various news items interpreted in South African Sign Language. This revealed that deaf viewers indeed divide their visual attention and primarily focus on the interpreter with monitoring glances at the main picture. Wehrmeyer (2014) does not claim that it is impossible for deaf people to perceive the interpreter and the picture at the same time. However, the results demonstrated that in doing so, the attention is not evenly distributed and one information channel will get more attention than the other. Based on the eye-tracking data, Wehrmeyer (2014) concludes that the primary source of information for the deaf viewer is the interpreter and that viewers do not switch to pictorial content as a backup source if they did not understand the interpreter. A follow-up study of deaf viewers' opinions on signed language interpreting on South African TV (Wehrmeyer 2015), confirmed these findings.

Whereas the issue of interference primarily affects the deaf viewer, the consequences pose a challenge for the interpreter. This is a second matter to be considered when working with video interpreted texts. Since interference might hamper the understanding of the message by the deaf viewer, the interpreter will need to monitor

possible negative backchannel feedback signaling confusion or loss of information by the deaf person. During an interpreter-mediated interaction, the interpreter monitors the eye gaze or assesses the backchannel signals he/she receives from the deaf viewer. These can be positive (nods, affirmative facial expression, smiles, gestures etc.), or negative (quizzical facial expressions, raised eyebrows, head shake, etc.) (Napier 2007). As described earlier, in the sessions with the hearing interpreters, deaf recipients were always present. This means that the interpreter could potentially be affected by the - positive or negative - backchannel feedback coming from the deaf recipient, who can indicate understanding, confirmation, but also confusion, need for clarification or not understanding by using the manual or non-manual signals mentioned (Napier 2007).

As observed by Napier (2007), interpreters make use of this visual feedback they receive from the deaf recipient during their interpretation in order to ascertain whether the interpretation is being understood. It either allows the interpreter to continue or it urges him/her to modify the interpretation. In effect, in any interpreting setting, the deaf recipient and the interpreter construct meaning together. Through eye gaze, manual and non-manual cues, the listener will signal to the interpreter whether he/she understands the message. Whereas the interpreter is mostly seen as the one transmitting the message, he/she is in his/her own right also a listener. When the deaf recipient signals, sometimes ever so subtly, an indication of confusion or that the message is not understood, the interpreter will respond. Napier (2007) mentions that the interpreter can react by reformulating, reproducing, and modifying the message. Based on my own observations the interpreter can also repeat what was signed, clarify what was signed, and/or ask the speaker to repeat or clarify.

A third challenge for both deaf and hearing interpreters, if the video is shown while they are interpreting, lies in how they will monitor their lag time. In any simultaneous interpreting situation, it is common for the interpreter to lag a few seconds behind the original message. In the case of interpreting alongside moving images, this means that the lag time might result in the interpreter referring to or talking about an image that is no longer displayed. The discrepancy between the visual information presented by the signed language interpreter and the images on screen can have (at least) two consequences: (1) the interpreter will try and shorten the lag time and/or (2) the deaf recipients will receive conflicting information. This lack of synchronization between the signed message and the imagery displayed on screen has been identified as one of the features disrupting comprehension of signed language interpreting on TV (Xiao & Li 2013). It was one of primary reasons why deaf people would not watch a signed language interpreted program(Xiao & Li 2013: 105). It also occurred third in the list of reasons why deaf viewers experienced comprehensibility issues (Xiao & Li 2013: 107).

An extra complication for the interpreter relates to the visual and spatial representation of the information. When the video is shown during the interpreting task, the interpreter will have to match the visual and spatial representation of the signed text with the imagery on the video. In other words, the interpreter will have to switch perspective and mirror the images she/he sees, which may demand more processing capacity from the interpreter. If the video is not shown, the interpreter is free to arrange the spatial setup as she/he sees fit.

If the source text in a research design is multimodal including audio, video, and written text, the researcher needs to ask him/herself whether it will enhance or hinder the research if the text is presented in its full multimodality. In the end, I concluded

that adding the extra visual layer of information during the interpreting performance would make the setting for that particular task more complex for both the interpreters and the deaf viewers.

(3) The stimulated recall interview

One safeguard a researcher can put in place when working with TAP, is using triangulation (Jääskeläinen 2002, 2010; Li 2004) by supplementing the Think Aloud Protocols with other data sets. This is encouraged in order to increase validity and, as Russell & Winston (2014) affirm, combining TAP and stimulated recall is "of great value" (2014: 109).

In the case study presented here, the data gathered from the TAP session is indeed supplemented with two other data sets: the actual product of the interpretation (i.e. the target text) and a stimulated recall interview.

Whereas a Think-Aloud Process is a form of concurrent verbal report, the stimulated recall interview is an introspective method done in retrospect. As Gass & Mackey (2000) point out:

> Stimulated recall methodology can be used to prompt participants to recall thoughts they had while performing a task or participating in an event. It is assumed that some tangible (perhaps visual or aural) reminder of an event will stimulate recall of the mental processes in operation during the event itself. (Gass & Mackey 2000; 13)

In the present case study, the tangible reminder of the event is visual: the recording of the interpreting performance, which is played back to the interpreter who is invited to comment on the own interpretation. The idea is to gain more insight into why the interpreter made certain linguistic choices. Whereas the thinking aloud action is

aimed at understanding the what and the how of the interpreting process, in conjunction, the stimulated recall explores the motivation.

In terms of equipment for the retrospective interview two laptops are used, one showed the interpreting performance and the other one recorded the interview.

There were several reasons a laptop was used instead of a camera fixed on a tripod. First and foremost, it is easier and faster to start the recordings with a laptop. It only involves opening the recording software, making sure that both the participant and the researcher are within the frame, and then pressing record. Whereas with a camera, it involves setting up the tripod in the right place, at the right height and adjusting the camera angle.

Secondly, it is easier to make a laptop less noticeable since a laptop placed on a desk is less conspicuous than a camera on a tripod. Moreover, when the researcher minimizes the recording screen, the recording itself is no longer visible and configurations can be set in such a way that after a couple of minutes the laptop screen goes into standby mode and it literally becomes covert. This way, the attention is directed to the interview and the interpreting performance and not to the fact that the discussion is being recorded. This absolutely minimizes the intrusiveness of the recording equipment since there is no overt visual reminder that a recording is ongoing and allows for the interview to be conducted in a fairly open and relaxed atmosphere.

A final reason to favor a laptop over a camera is that it is possible to save the interview recorded on the laptop immediately to an external hard disk and an online cloud service, which ensures that the data will not be lost due to technical issues.

The retrospective interview in the case study consisted of two parts, (1) a short discussion of the interpreter's perceived evaluation of the interpreting performance

and (2) the stimulated recall task. Firstly, I asked some general, pre-defined open-ended questions, which are in part based on Napier (2004), Stone (2005) and Russell & Winston (2014).

After the debriefing, I introduced the video of the interpreting performance and explained the aim of the stimulated recall task. The control over the retrospective interview was with the interpreter who could stop the video whenever he/she wanted to discuss something and indicate areas of difficulty and/or of success. The researcher at times asked specific questions, but tried to let the participant be the primary lead during the conversation.

So, at this point of the research, video recording was no longer solely a tool for data collection, but also a tool for data elicitation. During this phase of the data collection session video also became the centre of the interaction. The retrospective interview could also have been carried out without the visual stimuli, asking the interpreter what they remembered doing. However, for this particular case study and the research questions it aspired to answer, the use of video, both as a recording and an elicitation tool, was indispensable.

Issues

While it has been illustrated earlier that video plays an important role in signed language interpreting studies and in particular in research looking at the interpreting process, the use of video as a data collection and elicitation tool is not without obstacles. Metzger (1999) lists three issues regarding video recording interpreted encounters; (1) intrusiveness of the recording equipment, (2) limitations of the recording equipment, and (3) the added risk to informants' confidentiality as a result of recordings.

The first impediment was invoked by Wadensjö (1992) as an argument against the use of video recordings in Interpreting Studies. However, for research on signed language interpreting it is not an option to eliminate the use of video recorded data. Moreover, as stated in the introduction, researchers looking at (spoken) language in interaction argue that audiovisual recordings should be the established method for data collection (Jones & LeBaron 2002).

The second obstacle raised by Metzger (1999), the limitations of the recording equipment, might be less of an issue given the present day recording equipment. As Lucas et al (2013) stipulate: new technologies actually impact how (signed language) data are collected. They claim that traditional filming equipment is no longer needed but can be replaced by (online) recording software, as was the case for part of the data collected in the case study I presented.

Bendazolli & Sandrelli (2005) point out that gaining permission to record interpreted mediated situations may be the biggest obstacle for researchers to overcome. Moreover, these permissions attribute the challenges in access issues regarding confidentiality, making it particularly difficult for scholars to collect authentic data (Pöchhacker 2008).

This issue of confidentiality is an impediment noted by various scholars. When working with video recordings, participants may be more sensitive to this issue since it is rather difficult for a researcher to guarantee that participants will remain anonymous when they are being filmed.

In this respect Van Herreweghe & Vermeerbergen (2012) and Lucas et al (2013) not only talk about the issue of confidentiality before and during the data collection, but also after. During the process of disseminating and/or publishing research results, it is difficult to ensure the anonymity of the participants if a researcher wants to display

the actual data. Blurring the face of a signed language interpreter is not possible since the face carries important linguistic information.

The reluctance of interpreters to participate in research, which requires the recording of the actual interpretation, is also something a researcher needs to be aware of. Professional interpreters may perceive research of their work as an evaluation of their performance in terms of "good" or "bad" interpreting (Cencini 2002; Gile 1997; Kalina 1994). This ties in with what Lucas et al (2013) call "the self-consciousness of informants".

Outside the scope of this chapter, but nonetheless noteworthy, are the issues mentioned by Bendazolli & Sandrelli (2009) regarding data analysis. They draw attention to the time-consuming nature of data transcription and point out that researchers may want to look into automatic and semi-automatic analysis of data.

Based on the case study I presented, I want to additionally highlight some practical issues that occurred during the recording of the data.

Since the goal was to limit the intrusiveness of the recording on the research situation, I did not devote much attention to the equipment and the actual registration of the data during any of the three steps (the TAP, the interpreting task and the retrospective interview). This resulted in a couple of pragmatic problems I detected at the start of the data analysis.

One of the most frequent issues was the fact that participants were not always positioned in the best way in front of the camera or laptop. With respect to the TAP sessions conducted with the deaf interpreters, I discovered that it would have been better to position the camera in such a way that it captured both the deaf interpreter and what he/she sees on the screen of the laptop showing the instruction video. This way it would have been easier for me to connect the thinking aloud of the deaf

interpreter to what they were referring to in the source text. If the deaf participant, for instance, signs “I do not understand this part”, it is hard for me to establish what “this part” refers to. For the hearing interpreters, who worked with the audio, this was not an issue as I could hear the source text.

Another issue surfaced when watching the video recordings of the retrospective interviews with the deaf interpreters. The deaf interviewees would sometimes lean back or to the side, causing them to move out of the angle of the webcam making it, occasionally, not possible to see what they are signing.

In retrospect, I should also have devoted more attention to how the interviewee and myself were positioned during the stimulated recall task. In some cases, by coincidence, the interviewing space was organized very well and the recording would capture the participant, the laptop showing the interpreting task and myself. However, during other interviews, because we were in a different room, or because either the interpreter or I chose to sit elsewhere, the laptop showing the interpreting task was not visible on the recordings. As a consequence, when analyzing the data, it was not always clear what the interpreter was referring to when commenting on the interpreting task.

It also became obvious that it is important not only to consider what the best setup is in terms of recording the data, but also in terms of facilitating the communication. During one of the stimulated recall tasks, the laptop recording the interview did capture the interpreter, the screen of the laptop playing back the interpreting task, and myself. However, the fact that, when I looked at the screen of the laptop, I turned my back towards the interpreter did not facilitate the interaction. This was something I was not aware of and did not discover until I saw the recordings of the interview.

Unfortunately, not dedicating enough attention to the recording equipment also resulted in the loss of data. On one occasion, the camera did not record the interpreting task because it went into standby mode. Luckily, the laptop did record the task. During another data collection session, the laptop did not record the full interview because the storage was full.

Solutions

Several (potential) issues when using video in signed language interpreting studies have been identified in the previous section: (1) intrusiveness of the recording equipment, (2) limitations of the recording equipment, (3) difficulty to gain access to authentic data, (4) lack of confidentiality and/or anonymity, (5) reluctance of interpreters to cooperate and (6) pragmatic issues. I would like to offer possible solutions, in part based on the experience gathered from my own study.

The technological development of recording equipment and the availability of hand-held cameras, mini-cameras, button cameras, GoPro types and video recording software on laptops, tablets, and smartphones likely solve the first and second issues. By using smaller and/or less noticeable devices, participants may be less aware of the ongoing recordings, reducing the influence of the recording on the research setting. The fact that new(er) technology allows for almost any situation to be filmed, even without the presence of a researcher or someone controlling the recording (Lucas et al. 2013) revokes the limitations that old(er) recording equipment might have posed. Nonetheless, this requires that the researcher has access to these new technologies and has the technical savvy to use them.

The case study illustrated that there are benefits in working with various and new recording technologies. However, it is still important to consider which equipment is best used to record which kind of data. If, for instance, data are needed for an in-depth

linguistic analysis, it might be better to use a high definition camera than a built-in webcam and recording software.

The fact that recording equipment becomes less intrusive could also facilitate the access to authentic interpreting settings. However, gaining permission to film interpreted mediated encounters will always remain difficult. One solution has been offered by Bendazolli & Sandrelli (2005) who recorded interpreting settings that are already being filmed and made public. For other settings a researcher will need to gain the trust of all participants involved which may include interpreters, organizers and the interpreter's consumers. Of course, it is always an option to work with data gathered in an experimental setting.

No matter how or where the data are being recorded, the issue of confidentiality and lack of anonymity of signers is a challenge that needs thorough consideration. Lucas et al. (2013) recommend handling this carefully during the consent process. When informing the participants about the research, the consent should stipulate that they can either refuse or agree to have their images shown in publications and/or presentations.

Another way to address this - and this is the approach I used for the dissemination of results from the case study - is to ask the participants specifically for their consent every time the researcher wants to publish certain images. If the interpreter refuses, I either reproduce the utterances myself or ask a deaf model to do this, a solution proposed by Van Herreweghe & Vermeerbergen (2012).

There are different possible ways of handling the issue of the reluctance of interpreters to participate in research. An example of quality practice is actually found in many of the studies carried out in Interpreting Studies. Most scholars are

interpreters themselves. Gile (1994) coined the term *pratcisearchers* to describe this phenomenon.

Indeed, engaging interpreters to carry out research narrows the gap between the theoretical and the practical domain. The fact that research about interpreting is led by interpreters might also install trust within the interpreting community and encourage stakeholders to participate in these studies. This was for instance the case in the setup of the DIRSI corpus where five professional interpreters where engaged in the project (Bendazolli & Sandrelli 2009). They consented to be recorded and this resulted in obtaining the collaboration of conference organizers and other participants.

Proactively thinking about how to "give back" to the community is also something the researcher needs to do. Lucas et al (2013) note in this respect:

> The fact that community members have most often not been involved and empowered has led to caution and often reluctance by community members to cooperate with researchers, a reluctance that the contact people have to mediate. These issues have also led researchers to think about ways of giving back to the communities that they have worked in, sharing their findings through presentations and workshops and also by, providing copies of the published findings. (Lucas et al 2013; 547)

Although the authors refer to members of the Deaf community, the statement is equally true for members of the interpreting community.

For the specific pragmatic issues occurring during the data collection sessions of the case study I presented, there are several possible solutions. One is having a technician present during the data collection session, who should only be responsible for checking the cameras, the laptops, making sure everything is recorded adequately. This way the researcher can solely concentrate on the data collection protocol. This,

of course, implies that the intrusion factor is increased. It also requires more staff and consequently more funding.

Another possibility is for the researcher to explicitly take on this task of technician. If this were the case, I would have either stayed in the room during the TAP session and the interpreting task, or I would have walked in a couple of times to make sure everything was still operating effectively. During the retrospective interview, it would have been possible to keep the recording screen in full display on the laptop and monitor the placement of the participants, laptop and camera while also conducting the interview. As explained earlier, I consciously chose not to do this.

Conclusion

This chapter discussed the advantages and possible challenges of the use of video as a data collection and elicitation tool in signed language research, based on a case study exploring linguistic interpreting strategies used by Flemish Sign Language interpreters. Whereas the focus of this case study and my own experience concerns signed language research, I argued that any researcher interested in language use in interaction can benefit from using video as a data collection tool. Additionally, depending on the specific research topic, video as an elicitation tool can contribute to our understanding of human interaction.

In this sense I support the idea that communication (including interpretation) is an interactive event, which should be studied in its full multimodal effect (Mondada 2011). If a researcher indeed takes into account each aspect of a communicative activity, the data should represent all layers of such an activity. This implies that the verbal and non-verbal dimensions of communication should not be disconnected and that we need to steer away from logocentrism (Erickson 2011).

Consequently, video recording (which of course can include audio if applicable) is in my opinion the only viable data collection method when investigating language use in interaction. Whereas the use of video as a data collection tool is the conventional method for signed language research, it should also be(come) the basis for (future) research on spoken communication as suggested by Jones & LeBaron (2002).

Additionally, video recordings can serve as an elicitation tool, for instance as stimulus in a stimulated recall task. Especially if we aim to broaden our understanding of the interpreting process and the motivations underlying certain linguistic choices interpreters make, the use of video recorded data to elicit interpreters' explanations is of indispensable value. Even if spoken language interpreting researchers would assume that presenting the audio recordings of an interpreting performance is sufficient as stimulus, I would suggest that video recordings of the performance might yield unsuspected and new insights in what it is interpreters do and why.

Surely the benefits of introducing video in research are not restricted to the field of Interpreting Studies. To iterate what I stated earlier: registering interactive events, such as communication, in their full multimodal effect allows for investigation of all layers of the interaction. This will provide rich data, which after careful analysis will enhance our understanding of language use in interaction.

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